

**REMARKS**

Claims 3, 6, 15, and 16 have been canceled. Claims 4, 5, and 17 have been previously canceled. Claims 1, 13, and 20 have been amended. Claims 1, 2, 7 through 14, and 18 through 20 remain in the application.

Claims 1 through 3 and 6 through 12 were rejected under 35 U.S.C. § 103 as being unpatentable over Jogan et al. (U.S. Patent No. 5,429,786) in view of Masui et al. (U.S. Patent No. 5,053,179). Applicants respectfully traverse this rejection.

U.S. Patent No. 5,429,786 to Jogan et al. discloses a method of manufacturing a resin member. A door trim DT is manufactured with a female mold 33 and a male mold 34 mating with each other shown in FIG. 10. The male mold 34 is provided with a fence 35, which freely protrudes from a molding surface of the male mold 34 into a cavity formed between the male mold 34 and the female mold 33 so as to define the contour of a fluffed sheet element 31 set in the female mold 33. The fluffed sheet element 31 formed to a predetermined shape is set at a predetermined position 36 in the female mold 33. A first thermoplastic resin is then fed into a first cavity section 37 defined by a rear face of the fluffed sheet element 31 and the opposing face of the male mold 34. In a subsequent mold closing and pressing step, the first thermoplastic resin is pressed in the first cavity section 37 against the rear face of the fluffed sheet element 31 while the fence 35 protrudes from the molding surface of the male mold 34. During the mold closing and pressing process, the first thermoplastic resin fills through the first cavity section 37 on the rear face of the fluffed sheet element 31 to be securely integrated with the fluffed sheet element 31. Before the first thermoplastic resin completely hardens in the first cavity section 37, the fence 35 is pulled back to the molding surface of the male mold 34 and a second thermoplastic resin is injected into second and third cavity sections 38 and 39, which are adjacent to the first cavity section 37 on the rear face of the fluffed sheet element 31. The injected second

thermoplastic resin immediately fills through the second and third cavity sections 38 and 39 at the predetermined injection temperature and flows into the first thermoplastic resin, which is hardening in the first cavity section 37 to securely fuse with and adhere to the first thermoplastic resin. Jogan et al. does not disclose the steps of providing a trim loading system on a first half of a mold, loading a trim blank into the trim loading system, moving a slide having a recess to an extended position on a second half of the mold, extruding a molten first thermoplastic material onto the second half of the mold, closing the mold to bond the first thermoplastic material to the trim blank, disposing a blade on a first half of the mold in the recess, and moving the slide to a retracted position.

U.S. Patent No. 5,053,179 to Masui et al. discloses a process for producing a multilayer molded article. By using molding equipment comprising a mold in which a small wall 11 is provided on a cavity surface of an upper mold 7 at a position corresponding to a boundary where a skin material 3 covers a thermoplastic resin 2, a groove 15 is provided on a cavity surface of the lower mold 9 at a position corresponding to the small wall, a vertically movable rod 16 and bar 17 and a passage and an inlet for supplying a resin melt 4 are provided in the lower mold 9, a multilayer molded article is produced by steps i) to v). Masui et al. does not disclose the steps of providing a trim loading system on a first half of a mold, loading a trim blank into the trim loading system, and extruding a molten first thermoplastic material onto a second half of the mold.

In contradistinction, claim 1, as amended, clarifies the invention claimed as a method of making an interior trim panel for a vehicle. The method includes the steps of providing a mold having a first half and a second half, providing a trim loading system on the first half, loading a trim blank into the trim loading system, moving a slide having a recess to an extended position on the second half, and extruding a molten first thermoplastic material onto the

second half. The method also includes the steps of closing the mold to bond the first thermoplastic material to the trim blank, disposing a blade on the first half in the recess, and moving the slide to a retracted position. The method further includes the steps of injecting a molten second thermoplastic material into a cavity between the first half and the second half to bond the second thermoplastic material to the first thermoplastic material to form the interior trim panel.

The United States Court of Appeals for the Federal Circuit (CAFC) has stated in determining the propriety of a rejection under 35 U.S.C. § 103, it is well settled that the obviousness of an invention cannot be established by combining the teachings of the prior art absent some teaching, suggestion or incentive supporting the combination. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 U.S.P.Q. 657 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). The law followed by our court of review and the Board of Patent Appeals and Interferences is that “[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.” In re Rinehart, 531 F.2d 1048, 1051, 189 U.S.P.Q. 143, 147 (C.C.P.A. 1976). See also In re Lalu, 747 F.2d 703, 705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984) (“In determining whether a case of prima facie obviousness exists, it is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification.”)

None of the references cited, either alone or in combination with each other, teach or suggest the claimed invention of claim 1. Specifically, Jogan et al. ‘786 merely discloses a method of manufacturing a resin member in which a male mold is provided with a fence, which

freely protrudes from a molding surface of the male mold into a cavity formed between the male mold and the female mold, a first thermoplastic resin is then fed into a space between a male mold and a resilient surface sheet element set in a predetermined recess of a female mold, and a second thermoplastic resin fills a second cavity section, that is, in an area other than rear face of the resilient surface sheet element. Jogan et al. '786 lacks the steps of providing a trim loading system on a first half of a mold, loading a trim blank into the trim loading system, moving a slide having a recess to an extended position on a second half of the mold, extruding a molten first thermoplastic material onto the second half of the mold, closing the mold to bond the first thermoplastic material to the trim blank, disposing a blade on a first half of the mold in the recess, and moving the slide to a retracted position.

Masui et al. '179 merely discloses a process for producing a multilayer molded article in which a small wall is provided on a cavity surface of an upper mold at a position corresponding to a boundary where a skin material covers a thermoplastic resin and a groove is provided on a cavity surface of a lower mold at a position corresponding to the small wall. Masui et al. '179 lacks the steps of providing a trim loading system on a first half of a mold, loading a trim blank into the trim loading system, and extruding a molten first thermoplastic material onto a second half of the mold. There is no suggestion or motivation in the art for combining Jogan et al. '786 and Masui et al. '179 together.

The references, if combinable, fail to teach or suggest the combination of a method of making an interior trim panel including the steps of providing a mold having a first half and a second half, providing a trim loading system on the first half, loading a trim blank into the trim loading system, moving a slide having a recess to an extended position on the second half, extruding a molten first thermoplastic material onto the second half, closing the mold to bond the first thermoplastic material to the trim blank, disposing a blade on the first half in the

recess, moving the slide to a retracted position, and injecting a molten second thermoplastic material into a cavity between the first half and the second half to bond the second thermoplastic material to the first thermoplastic material to form the interior trim panel as claimed by Applicants. The claimed combination is novel and unobvious because the method of making the interior trim panel provides the combination of extrusion deposition molding and injection molding in a single manufacturing step to make a trim panel, which is partially covered, and partially exposed having a class A interior surface, while preventing overflow of the melt. The Examiner has failed to establish a case of prima facie obviousness. Therefore, it is respectfully submitted that claim 1 and the claims dependent therefrom are allowable over the rejection under 35 U.S.C. § 103.

Claims 13 through 16, 18, and 19 were rejected under 35 U.S.C. § 103 as being unpatentable over Jogan et al. '786 in view of Masui et al. '179. Applicants respectfully traverse this rejection.

As to claim 13, claim 13, as amended, clarifies the invention claimed as a method of making an interior trim panel for an inner panel of a vehicle. The method includes the steps of providing a mold having a first half and a second half, providing a trim loading system on the first half, loading a trim blank into the trim loading system, and moving a slide having a recess to an extended position on the second half. The method also includes the steps of extruding a molten first thermoplastic material onto the second half, closing the mold to bond the first thermoplastic material to the trim blank, and disposing a blade on the first half in the recess to form a first portion of the interior trim panel. The method further includes the steps of moving the slide to a retracted position, injecting a molten second thermoplastic material into the mold, and forcing the molten plastic material into a cavity between the first half and the second half to

bond the second thermoplastic material to the first thermoplastic material to form a second portion of the interior trim panel.

None of the references cited, either alone or in combination with each other, teach or suggest the claimed invention of claim 13. Specifically, Jogan et al. '786 merely discloses a method of manufacturing a resin member in which a male mold is provided with a fence, which freely protrudes from a molding surface of the male mold into a cavity formed between the male mold and the female mold, a first thermoplastic resin is then fed into a space between a male mold and a resilient surface sheet element set in a predetermined recess of a female mold and a second thermoplastic resin fills a second cavity section, that is, in an area other than rear face of the resilient surface sheet element. Jogan et al. '786 lacks the steps of providing a trim loading system on a first half of a mold, loading a trim blank into the trim loading system, moving a slide having a recess to an extended position on a second half of the mold, extruding a molten first thermoplastic material onto the second half of the mold, closing the mold to bond the first thermoplastic material to the trim blank, disposing a blade on the first half in the recess to form a first portion of an interior trim panel, and moving the slide to a retracted position.

Masui et al. '179 merely discloses a process for producing a multilayer molded article in which a small wall is provided on a cavity surface of an upper mold at a position corresponding to a boundary where a skin material covers a thermoplastic resin and a groove is provided on a cavity surface of a lower mold at a position corresponding to the small wall. Masui et al. '179 lacks the steps of providing a trim loading system on a first half of a mold, loading a trim blank into the trim loading system, and extruding a molten first thermoplastic material onto a second half of the mold. There is no suggestion or motivation in the art for combining Jogan et al. '786 and Masui et al. '179 together.

The present invention sets forth a unique and non-obvious combination of a method of making an interior trim panel that provides the combination of extrusion deposition molding and injection molding in a single manufacturing step to make a trim panel, which is partially covered, and partially exposed having a class A interior surface, while preventing overflow of the melt. The references, if combinable, fail to teach or suggest the combination of a method of making an interior trim panel including the steps of providing a mold having a first half and a second half, providing a trim loading system on the first half, loading a trim blank into the trim loading system, moving a slide having a recess to an extended position on the second half, extruding a first molten thermoplastic material onto the second half, closing the mold to bond the first thermoplastic material to the trim blank, disposing a blade on the first half in the recess to form a first portion of the interior trim panel, moving the slide to a retracted position, injecting a molten second thermoplastic material into the mold, and forcing the molten plastic material into a cavity between the first half and the second half to bond the second thermoplastic material to the first thermoplastic material to form a second portion of the interior trim panel as claimed by Applicants.

Further, the CAFC has held that “[t]he mere fact that prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification”. In re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). The Examiner has failed to show how the prior art suggested the desirability of modification to achieve Applicants’ invention. Thus, the Examiner has failed to establish a case of prima facie obviousness. Therefore, it is respectfully submitted that claim 13 and the claims dependent therefrom are allowable over the rejection under 35 U.S.C. § 103.

Claim 20 was rejected under 35 U.S.C. § 103 as being unpatentable over Jogan et al. ‘786 in view of Masui et al. ‘179. Applicants respectfully traverse this rejection.

As to claim 20, claim 20, as amended, clarifies the invention claimed as a method of making a door trim panel for attachment to an inner panel of a door of a vehicle. The method includes the steps of providing a mold having a first half and a second half, providing a pin frame on the first half, loading a trim blank into the pin frame, and extending a slide having a recess to an extended position on the second half. The method also includes the steps of extruding a molten first thermoplastic material onto the second half, closing the mold to bond the first thermoplastic material to the trim blank, and disposing a blade on the first half in the recess to form a first portion of the door trim panel. The method further includes the steps of retracting the slide to a retracted position, injecting a molten second thermoplastic material into a cavity between the first half and the second half, and forcing the molten second thermoplastic material into the cavity to bond the second thermoplastic material to the first thermoplastic material to form a second portion of the door trim panel.

None of the references cited, either alone or in combination with each other, teach or suggest the claimed invention of claim 20. Specifically, Jogan et al. '786 merely discloses a method of manufacturing a resin member in which a male mold is provided with a fence, which freely protrudes from a molding surface of the male mold into a cavity formed between the male mold and the female mold, a first thermoplastic resin is then fed into a space between a male mold and a resilient surface sheet element set in a predetermined recess of a female mold and a second thermoplastic resin fills a second cavity section, that is, in an area other than rear face of the resilient surface sheet element. Jogan et al. '786 lacks the steps of providing a pin frame on a first half of a mold, loading a trim blank into the pin frame, extending a slide having a recess to an extended position on a second half of the mold, extruding a molten first thermoplastic material onto the second half of the mold, closing the mold to bond the first thermoplastic material to the



trim blank, disposing a blade on the first half in the recess to form a first portion of the door trim panel, and retracting the slide to a retracted position.

Masui et al. '179 merely discloses a process for producing a multilayer molded article in which a small wall is provided on a cavity surface of an upper mold at a position corresponding to a boundary where a skin material covers a thermoplastic resin and a groove is provided on a cavity surface of a lower mold at a position corresponding to the small wall. Masui et al. '179 lacks the steps of providing a pin frame on the first half, loading a trim blank into the pin frame, and extruding a molten first thermoplastic material onto a second half of the mold. There is no suggestion or motivation in the art for combining Jogan et al. '786 and Masui et al. '179 together.


The references, if combinable, fail to teach or suggest the combination of a method of making a door trim panel including the steps of providing a mold having a first half and a second half, providing a pin frame on the first half, loading a trim blank into the pin frame, extending a slide having a recess to an extended position on the second half, extruding a molten first thermoplastic material onto the second half, closing the mold to bond the first thermoplastic material to the trim blank, disposing a blade on the first half in the recess to form a first portion of the door trim panel, retracting the slide to a retracted position, injecting a molten second thermoplastic material into a cavity between the first half and the second half, and forcing the molten second thermoplastic material into the cavity to bond the second thermoplastic material to the first thermoplastic material to form a second portion of the door trim panel as claimed by Applicants. The claimed combination is novel and unobvious because the method of making the interior trim panel provides the combination of extrusion deposition molding and injection molding in a single manufacturing step to make a trim panel, which is partially covered, and partially exposed having a class A interior surface, while preventing overflow of the melt. The

Examiner has failed to establish a case of prima facie obviousness. Therefore, it is respectfully submitted that claim 20 is allowable over the rejection under 35 U.S.C. § 103.

Obviousness under § 103 is a legal conclusion based on factual evidence (In re Fine, 837 F.2d 1071, 1073, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988), and the subjective opinion of the Examiner as to what is or is not obvious, without evidence in support thereof, does not suffice. Since the Examiner has not provided a sufficient factual basis, which is supportive of his/her position (see In re Warner, 379 F.2d 1011, 1017, 154 U.S.P.Q. 173, 178 (C.C.P.A. 1967), cert. denied, 389 U.S. 1057 (1968)), the rejections of claims 1 through 3, 6 through 16, and 18 through 20 were improper. Therefore, it is respectfully submitted that claims 1, 2, 7 through 14, and 18 through 20 are allowable over the rejections under 35 U.S.C. § 103.

Based on the above, it is respectfully submitted that the claims are in a condition for allowance, which allowance is solicited.

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